

Data for Ebsp

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There are some data for the paper of “Routing and Scheduling of Electric Buses for Resilient Restoration of Distribution System”

1. Transfer time and duration of trips

Table 1: Transfer time and duration of each trip

| ΔT | o1 | c1 | c2 | c3 | b1 | b2 | e1 | e2 |
|------------|----|----|----|----|----|----|----|----|
| o1 | 0 | 1 | 1 | 1 | 2 | 1 | M | M |
| c1 | 1 | 0 | 1 | 2 | 2 | 1 | M | M |
| c2 | 1 | 1 | 0 | 1 | 1 | 2 | M | M |
| c3 | 1 | 2 | 1 | 0 | 2 | 1 | M | M |
| b1 | M | M | M | M | 0 | M | 6 | M |
| b2 | M | M | M | M | M | 0 | M | 8 |
| e1 | 1 | 2 | 1 | 2 | 1 | 1 | 0 | M |
| e2 | 1 | 1 | 2 | 1 | 1 | 1 | M | 0 |

where o1 represents the depot 1; c1 represents the charging station at node 9; c2 represents the charging station at node 18; c3 represents the charging station at node 29; b1/b2 represents the start point of route 1/2; e1/e2 represents the end point of route 1/2.

2. Load value of each node

The load value of each node is listed in Table 2.

Table 2: Transfer time and duration of each trip

| Node | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Value(\$/kWh) | 9 | 2 | 2 | 8 | 7 | 5 | 3 | 2 | 2 | 4 | 10 | 3 | 5 | 6 | 9 | 9 | 2 |
| Node | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | / |
| Value(\$/kWh) | 8 | 3 | 4 | 7 | 8 | 2 | 5 | 5 | 2 | 8 | 4 | 6 | 6 | 6 | 9 | 7 | / |